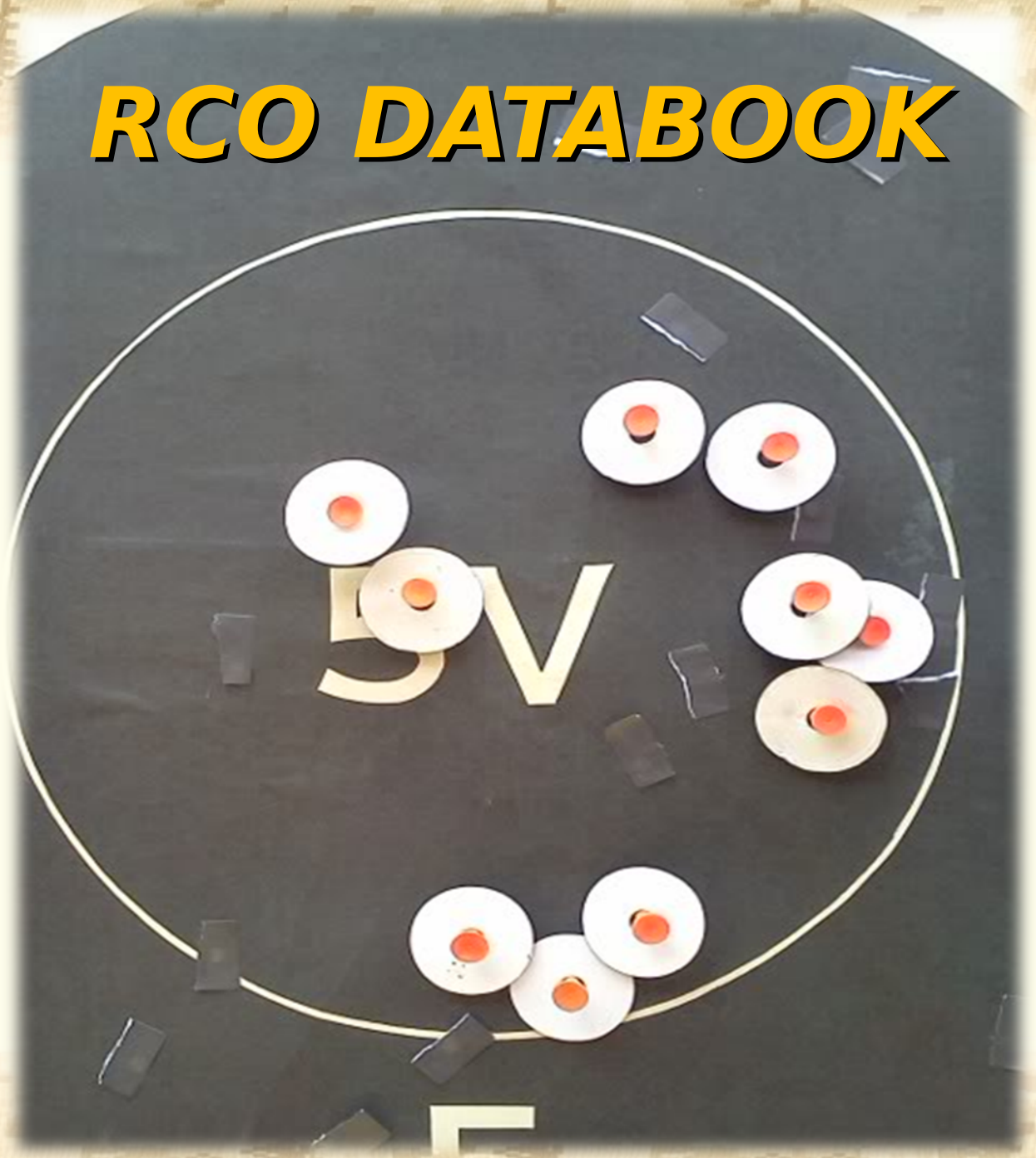
USMC

SHOOTING TEAM

RCO DATABOOK



DATA BOOK OVERVIEW

- Importance of the data book
- Before firing data
- During firing data
- After firing data
- Data book analysis

DIVISION MATCH AND ANNUAL RIFLE TRAINING DATABOOK

M16A4 /M4 SERVICE RIFLE WITH RIFLE COMBAT OPTIC (RCO) AND BACK-UP IRON SIGHT (BUIS)

LAST NAME, INITIALS: Mad Dog Mattis			LAST 4: 0000
UNIT: WTBN			BLOOD TYPE:
WEAPON SERIAL #: 12345678		RCO SERIAL #: RCO # 54321	
RANGE: Wilcox	TARGET:	RELAY:	DATE: 25Feb13

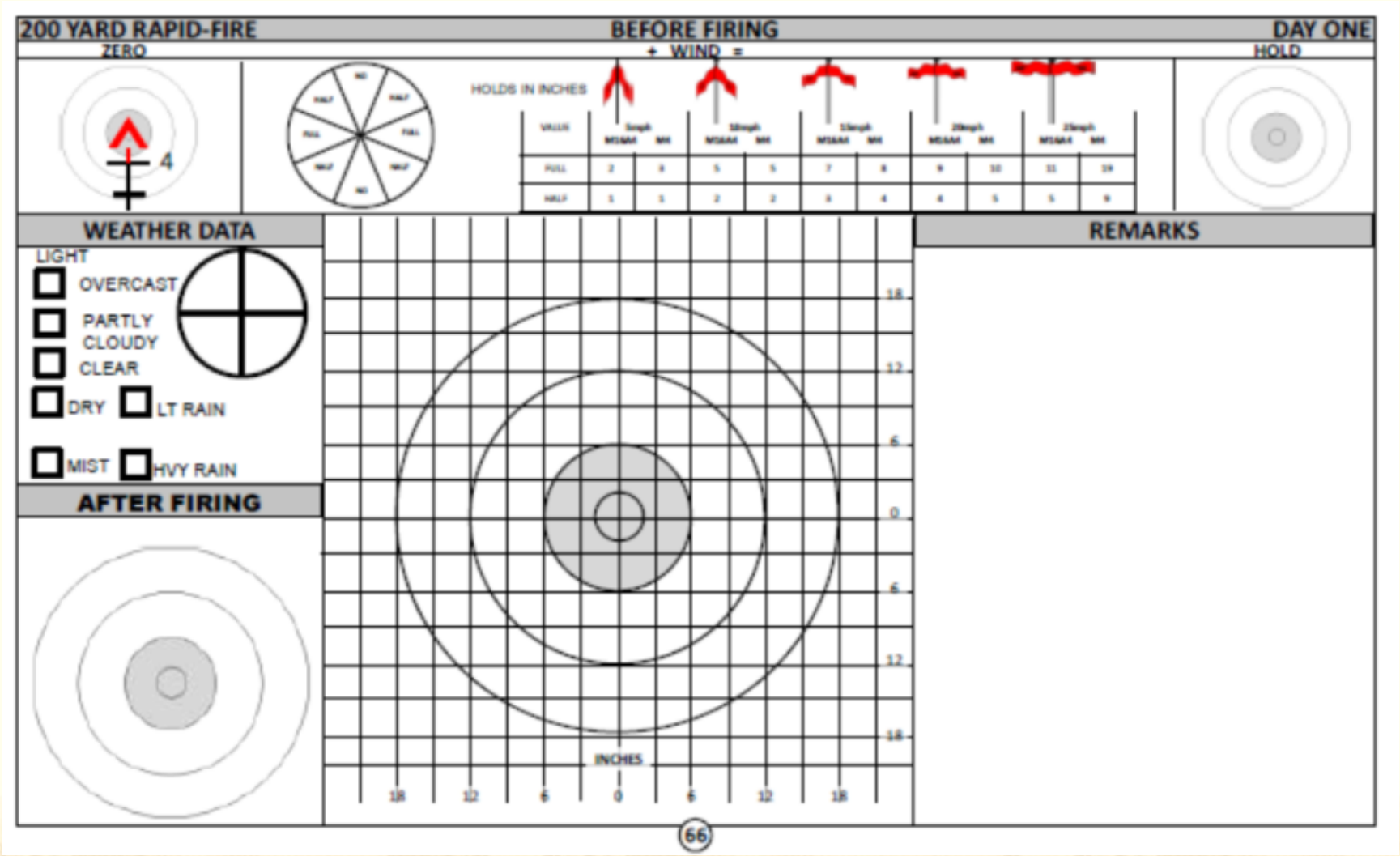
COLLIMATOR SETTING

ALPHA	NUMERIC

BUIS BZO	ELEV	WIND

NAVMC XXXXX (Rev. 01-12) Previous editions are obsolete
S/N: XXXX-XXX-XX-XXXX U/I :
FOUO: Privacy sensitive when filled in

BASIC RCO DATA BOOK



BEFORE FIRING DATA

- Initial hold per TM Manual
  - True no wind hold
- Wind call hold
- Sling length/adjustment
- Weather conditions

500 YARD SLOW-FIRE

BEFORE FIRING

DAY ONE

ZERO

WIND

HOLDS IN INCHES

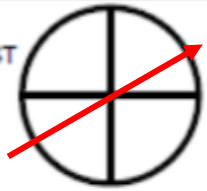
VALUE	5mph M16A4	5mph M4	10mph M16A4	10mph M4	15mph M16A4	15mph M4	20mph M16A4	20mph M4	25mph M16A4	25mph M4
FULL	17	20	35	40	52	60	69	81	87	101
HALF	9	10	17	20	26	30	34	40	43	50

HOLD

WEATHER DATA

LIGHT

- [ ] OVERCAST
- [x] PARTLY CLOUDY
- [ ] CLEAR

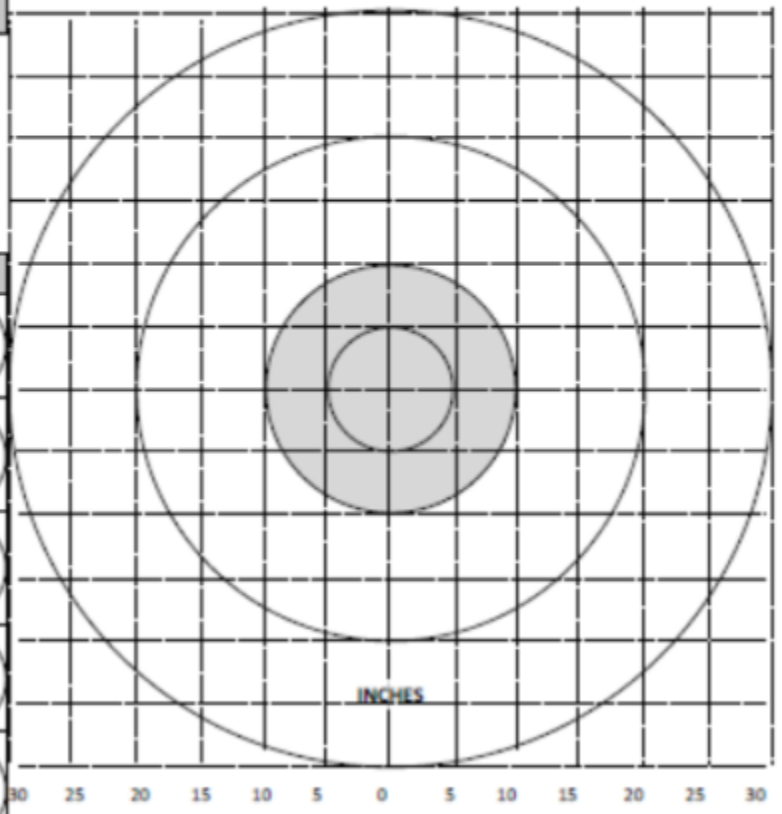


PRECIP

- [x] DRY
- [ ] LT RAIN
- [ ] MIST
- [ ] HVY RAIN

DURING FIRING

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20



AFTER FIRING

REMARKS

DURING SLOW FIRE DATA

- Calling shots
- Plotting shots
  - Shot behind method
- Hold changes

500 YARD SLOW-FIRE

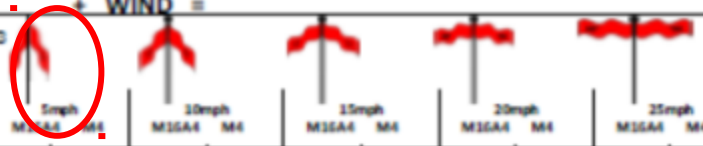
BEFORE FIRING

DAY ONE

ZERO

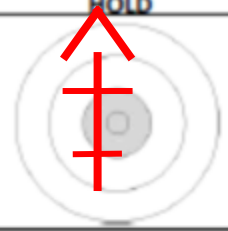
HOLDS IN INCHES

WIND



VALUE	5mph M16A4	5mph M4	10mph M16A4	10mph M4	15mph M16A4	15mph M4	20mph M16A4	20mph M4	25mph M16A4	25mph M4
FULL	17	20	35	40	52	60	69	81	87	101
HALF	9	10	17	20	26	30	34	40	43	50

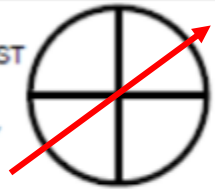
HOLD



WEATHER DATA

LIGHT

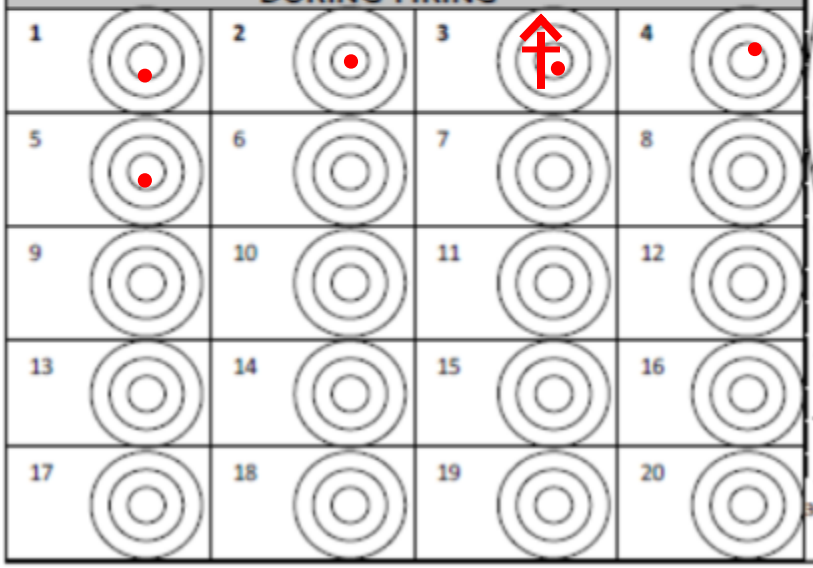
- [ ] OVERCAST
- [x] PARTLY CLOUDY
- [ ] CLEAR

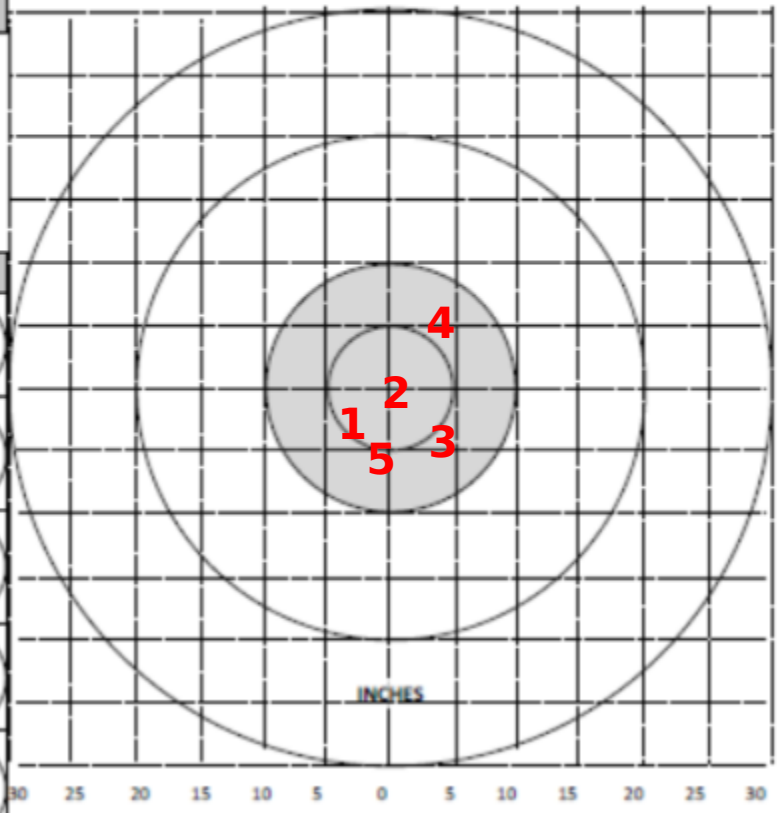


PRECIP

- [x] DRY
- [ ] LT RAIN
- [ ] MIST
- [ ] HVY RAIN

DURING FIRING





AFTER FIRING

REMARKS

AFTER FIRING DATA

- After firing hold
- Wind call hold
- Refined no wind hold
- Comments
- Transferring data to next stage and firing day

500 YARD SLOW-FIRE

BEFORE FIRING

DAY ONE

ZERO

HOLDS IN INCHES

+ WIND =

VALUE	5mph M16A4	5mph M4	10mph M16A4	10mph M4	15mph M16A4	15mph M4	20mph M16A4	20mph M4	25mph M16A4	25mph M4
FULL	17	20	35	40	52	60	69	81	87	101
HALF	8	10	17	20	26	30	34	40	43	50

HOLD

AFTER FIRING

REMARKS

WEATHER DATA

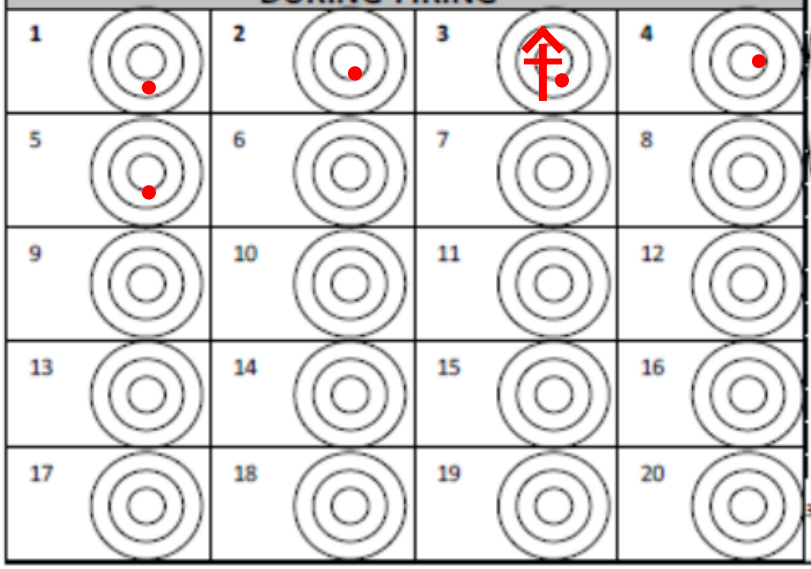
LIGHT

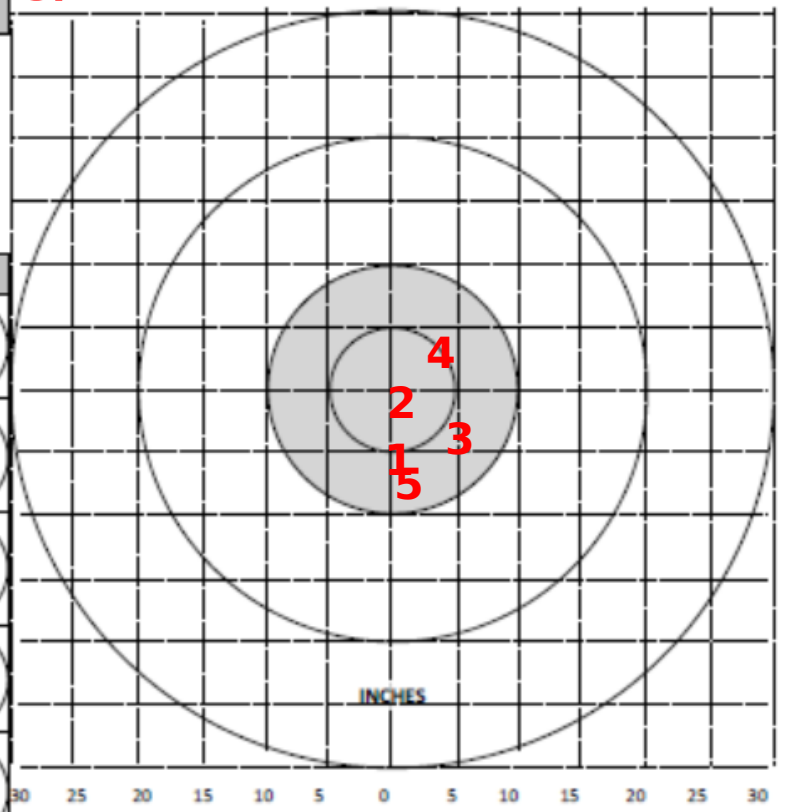
- ☐ OVERCAST
- ☒ PARTLY CLOUDY
- ☐ CLEAR

PRECIP

- ☒ DRY
- ☐ LT RAIN
- ☐ MIST
- ☐ HVY RAIN

DURING FIRING





RAPID FIRING DATA -- RCO

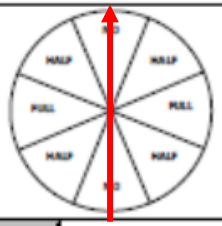
- Before firing data
  - Same as slow fire (draw full chevron)
- After firing data
  - Plotting groups in small circles
  - Cluster and bracket to find refined hold
  - Same as slow fire

300 YARD RAPID-FIRE

BEFORE FIRING

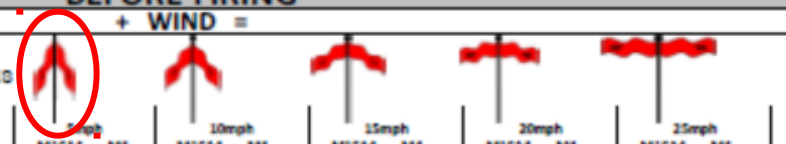
DAY ONE

ZERO



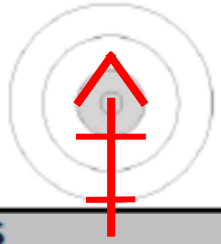
+ WIND =

HOLDS IN INCHES



VALUE	5mph M16A4	5mph M4	10mph M16A4	10mph M4	15mph M16A4	15mph M4	20mph M16A4	20mph M4	25mph M16A4	25mph M4
FULL	5	6	11	13	16	18	22	25	27	32
HALF	2	3	5	6	8	9	11	12	13	16

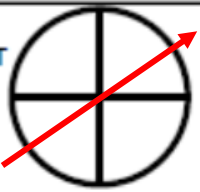
HOLD



WEATHER DATA

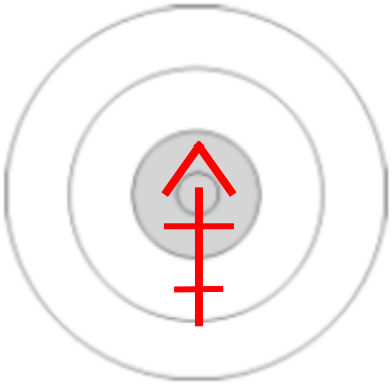
LIGHT

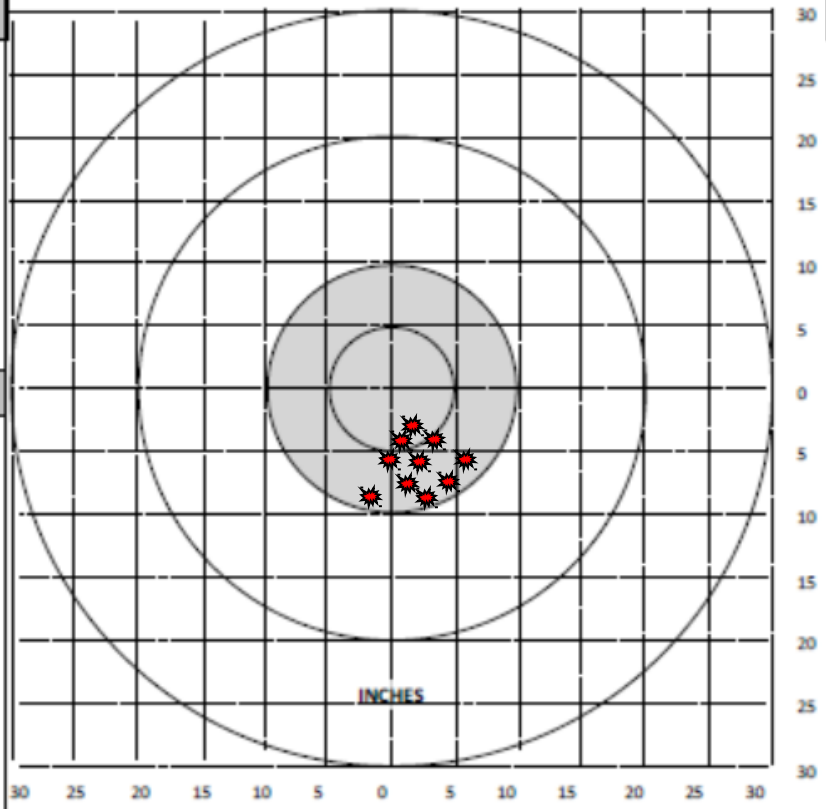
- [ ] OVERCAST
- [ ] PARTLY CLOUDY
- [X] CLEAR



- [X] DRY
- [ ] LT RAIN
- [ ] MIST
- [ ] HVY RAIN

AFTER FIRING

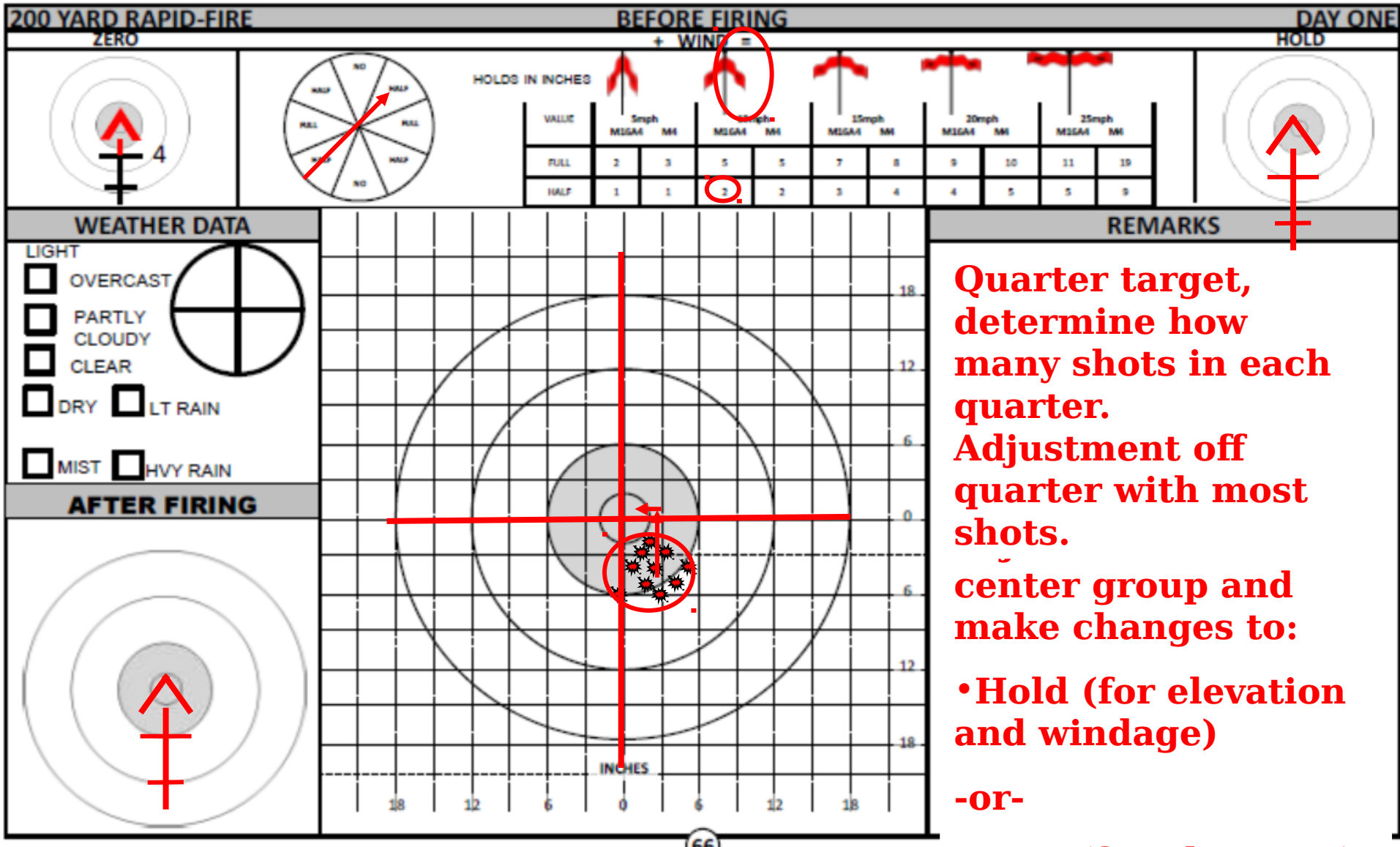




REMARKS

DATA BOOK ANALYSIS

- Purpose
  - Weather conditions
  - Shot groups
  - Comparing data to date



Quarter target, determine how many shots in each quarter.
Adjustment off quarter with most shots.
center group and make changes to:

- **Hold (for elevation and windage)**

-or-

- **Zero (for elevation)***

Analyze zero across all

TAKEAWAYS

- Ensure expectations of weapon are realistic! 5 MOA is acceptable by factory standards.
- Ensure sling is not extremely tight!
- Proper mounting of RCO mitigates issues later on.
- Factor out position or aiming factors prior to blaming weapon/optic for poor performance.
- Calling your shots is CRITICAL to identifying a problem with weapon/optic.

SUMMARY

- Importance of the data book
- Before firing
- During firing
- After firing
- Data book analysis

Captain McMillan & Colonel Walsh
reviewing databooks... in 1954...
nothing has changed – USE YOURS!

QUESTIONS

USMC

SHOOTING TEAM